District 06 Mobility Performance Report

2016 Second Quarter

DEPARTMENT OF TRANSPORTATION

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EXECUTIVE SUMMARY

Overview

Caltrans District 6 is geographically diverse district and the third largest of the 12 Districts statewide, stretching from the southernmost part of Yosemite National Park in the north to the Mojave Desert. It includes Madera, Fresno, Tulare, Kings and Kern counties. District 6 maintains and operates of 476 miles of freeway and 1,554 miles of rural and urban highway. The District has the largest portion of road miles to maintain in the state highway system with 2,030 miles.

The Mobility Performance quarterly analysis compares information with over a year ago and over last quarter in the following performance measures:

- Vehicle Miles of Travel (VMT))
- Vehicle Hours of Delay (VHD)
- Lost Lane Miles (equivalent lost productivity)
- Detector Health

This information is based on the continuous data collected by automated vehicle detector stations deployed on urban-area freeways with recurrent congestion. The MPR presents congestion delay information at two speed thresholds: delay from vehicles traveling below 35 miles per hour (mph), and delay from vehicles traveling below 60 mph. The delay at the 35 mph threshold represents severe congestion while delay at 60 mph represents all congestion. These thresholds are set by Caltrans and are based on engineering experience and District input.

FINDINGS

In the second quarter of 2016, the total delay equaled 157 thousands Vehicle Hours of Delay (VHD) at the 35 mph speed threshold, and 837 thousands VHD at the 60 mph threshold. The average weekday delay experienced in this quarter was approximately 1,826 VHD at 35 mph, and 10,795 VHD at 60 mph.

The VHD in this quarter experienced an overall decrease of 21.2% compared to the previous quarter. However the experience for each route showed variation (increase and decrease).

The decreased VHD on State Route 99 in Fresno County could be related to Freeway Realignment Project in City of Fresno between W. Olive Ave and W, Ashlan Ave (PM23.5/26.7). Several detectors were offline and did not collect any data in the vicinity.

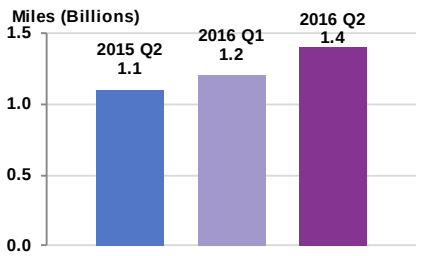
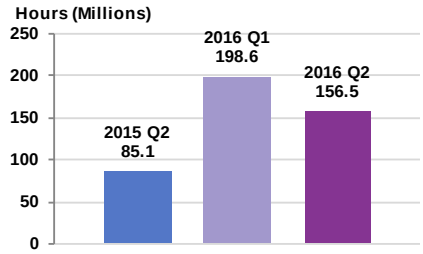
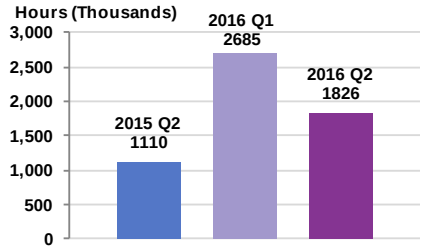
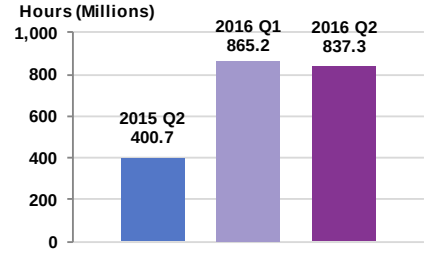
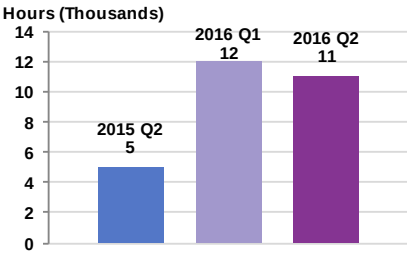
The increased VHD on State Route 99 in Kern County could be related to several projects in the City of Bakersfield. An operation improvement around State Route 99 & State Route 58 interchange and a ramp widening project at the Rosedale Highway southbound off-ramp. The project resulted in significant traffic delay in the vicinity.

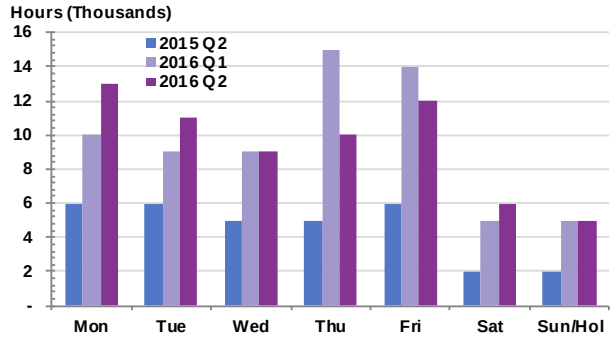
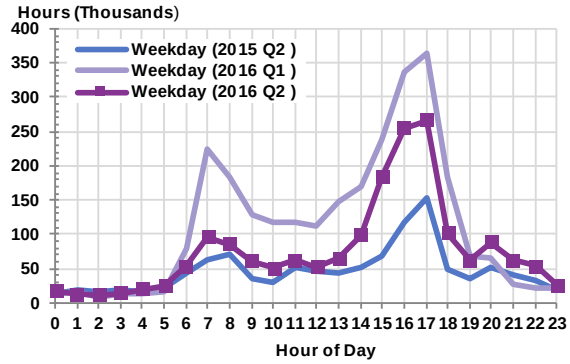
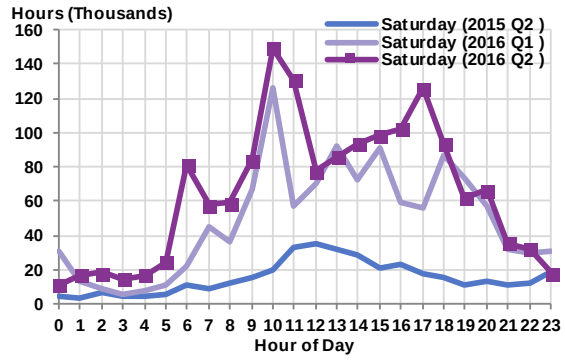
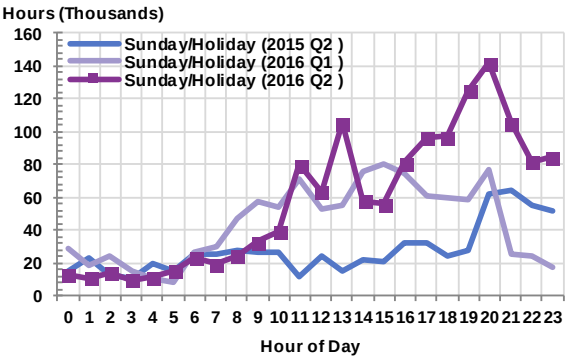
The increased VHD on State Route 99 in Madera could be attributed to the completion of Avenue 12 and SR-99 Interchange Project at postmile 7.5. Reopening the interchange to traffic resulted in additional traffic from Avenue 12.

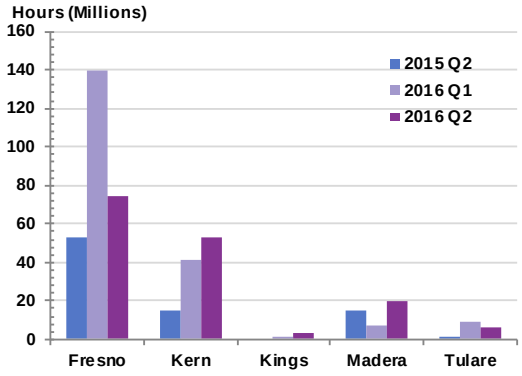
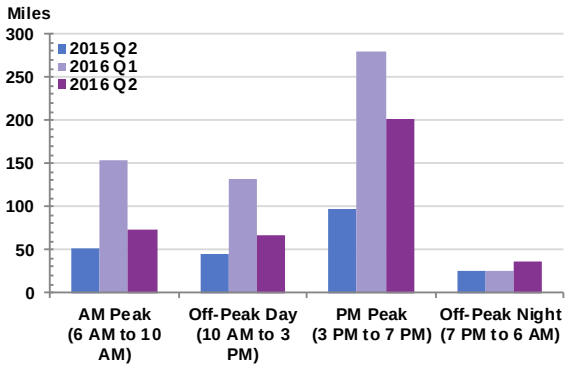
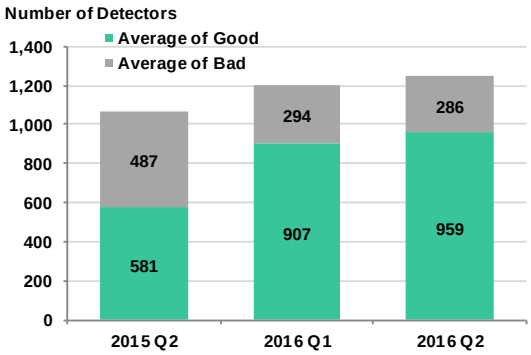
Inaccurate data on first quarter of 2016 was found in the value of VHD on State Route 46 in Kern County. Detector was then adjusted and should be collecting full time data correctly in this second quarter.

There are no bottlenecks identified within the District 6 Highway system.

Quarterly Mobility Statistics

Measure	Graph	Percentage Change	
		Over one year ago	Over last quarter
Vehicle Miles of Travel (VMT)		27.5% ↑	13.2% ↑
Total Vehicle Hours of Delay (VHD) at 35 mph		83.9% ↑	-21.2% ↓
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph		64.6% ↑	-32% ↓
Total Vehicle Hours of Delay (VHD) at 60 mph		108.9% ↑	-3.2% ↓
Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph		103.1% ↑	-7% ↓

Measure	Graph	Percentage Change	
Average Vehicle Hours of Delay by Day of Week at 60 mph		Largest Magnitude Decrease over one year ago –	Largest Magnitude Decrease over last quarter Thursday -32.6%
		Largest Magnitude Increase over one year ago Monday 131.8%	Largest Magnitude Increase over last quarter Monday 30.6%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays		Largest Magnitude Weekday Decrease over one year ago 3 AM -30.9%	Largest Magnitude Weekday Decrease over last quarter 7 AM -56.8%
		Largest Magnitude Weekday Increase over one year ago 4 PM 117.6%	Largest Magnitude Weekday Increase over last quarter 9 PM 121%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays		Largest Magnitude Saturday Decrease over one year ago 11 PM -3%	Largest Magnitude Saturday Decrease over last quarter 12 AM -63.8%
		Largest Magnitude Saturday Increase over one year ago 10 AM 655.7%	Largest Magnitude Saturday Increase over last quarter 11 AM 127.7%
Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/ Holidays		Largest Magnitude Sun./Holiday Decrease over one year ago 1 AM -55.6%	Largest Magnitude Sun./Holiday Decrease over last quarter 9 AM -42.7%
		Largest Magnitude Sun./Holiday Increase over one year ago 7 PM 360.7%	Largest Magnitude Sun./Holiday Increase over last quarter 9 PM 322.1%

Measure	Graph	Percentage Change	
Total Vehicle Hours of Delay (VHD) by County at 35 mph		Largest Magnitude Decrease over one year ago –	Largest Magnitude Decrease over last quarter Fresno -46.8%
		Largest Magnitude Increase over one year ago Kern 243.2%	Largest Magnitude Increase over last quarter Madera 165.1%
Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph		Largest Magnitude Decrease over one year ago –	Largest Magnitude Decrease over last quarter AM Peak -52%
		Largest Magnitude Increase over one year ago PM Peak 106.7%	Largest Magnitude Increase over last quarter Off-Peak Night 38.1%
Average Number of Good and Bad Detectors		Change in Good over one year ago 65%	Change in Good over last quarter 6%
		Change in Bad over one year ago -41%	Change in Bad over last quarter -3%

Congestion by Route											
		Vehicle Hours of Delay at 35 mph			Difference 2016 Q2-2015 Q2		Difference 2016 Q2-2016 Q1		Rank		
Route	County	2015 Q2	2016 Q1	2016 Q2	Absolute	Percentage	Absolute	Percentage	2015 Q2	2016 Q1	2016 Q2
SR99	Fresno	26,472	108,357	40,405	13,932	52.6%	-67,953	-62.7%	1	1	1
I5	Kern	1,170	24,221	25,523	24,354	2082.0%	1,302	5.4%	9	2	2
SR99	Kern	11,990	7,538	23,137	11,147	93.0%	15,599	206.9%	5	6	3
SR99	Madera	14,377	7,056	20,007	5,631	39.2%	12,951	183.6%	2	8	4
SR180	Fresno	1,580	11,470	14,763	13,183	834.2%	3,293	28.7%	7	4	5
SR41	Fresno	12,146	11,886	11,203	-943	-7.8%	-683	-5.7%	4	3	6
I5	Fresno	12,657	6,676	6,184	-6,472	-51.1%	-491	-7.4%	3	9	7
SR99	Tulare	1,289	8,626	5,847	4,558	353.5%	-2,779	-32.2%	8	5	8
SR58	Kern	2,174	2,103	3,733	1,560	71.8%	1,630	77.5%	6	10	9
SR168S	Fresno	45	1,473	1,768	1,724	3847.1%	295	20.1%	12	11	10
SR198	Kings	0	658	1,664	1,664		1,006	153.1%		12	11
I5	Kings	0	0	937	937		937				12
SR41	Kings	0	624	842	842		218	34.8%		13	13
SR46	Kern	1	7,239	235	235	39083.3%	-7,004	-96.8%	13	7	14
SR168	Fresno	0	146	143	143		-3	-2.3%		15	15
SR198	Tulare	237	54	91	-147	-61.8%	37	68.4%	11	16	16
SR41	Madera	1,003	20	30	-973	-97.0%	10	49.5%	10	17	17
SR152	Madera	0	492	23	23		-468	-95.3%		14	18
TOTALS		**85,139**	**198,638**	**156,536**	**71,396**	**83.9%**	**-42,103**	**-21.2%**			

Vehicle Hours of Delay is in Hours (Thousand)

SR99 Fresno: Construction - SR 99 Realignment PM 23.5/26.7 for High Speed Rail project. Detector offline.

SR99 Kern: Construction - Several project along SR99 in the City of Bakersfield area. Rosedale Southbound Off-ramp Widening, and operation improvement around SR99 / SR 58 Interchange.

SR99 Madera: Completed - Avenue 12 and SR 99 Interchange Project. New interchange reopen to traffic, additional traffic from Avenue 12.

SR46 Kern: Inaccurate data on 1st quarter of 2016. Detector was then adjusted and should be working correctly on this 2nd quarter.